

# Patent [19]

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## [54] MANUFACTURE OF SEMICONDUCTOR DEVICE AND FORMATION METHOD OF BURIED INTERCONNECTION

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### [57] ABSTRACT

**PROBLEM TO BE SOLVED:** To efficiently flatten a film, to be worked, while the progress of an erosion due to a scratch or the like is being suppressed in a polishing operation by using a slurry for chemical mechanical polishing, which contains a coagulated body in which polymer particles and inorganic particles adsorbed on the polymer particles are contained.

**SOLUTION:** A slurry for chemical mechanical polishing contains a coagulated body in which polymer particles 1 and inorganic particles 2 adsorbed on the polymer particles 1 are contained. The coagulated body is obtained in such a way that the inorganic particles 2 whose surface potential is different from that of the functional group of the polymer particles 1 are adsorbed to the surface of the polymer particles 1. Accordingly, the rigid inorganic particles 2 on the surface of the coagulated body display a sufficient polishing capability; and the proper elasticity of the polymer particles 1 prevents the generation of a scratch and the progress of an erosion. In addition, the excessive polymer particles 1 creep into abrasive grains so as to display a dummy abrasive-grain effect which prevents an excessive polishing operation, and the erosion is suppressed remarkably.

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